Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Preserving the Open Internet	)	GN Docket No. 09-191
	)	
Broadband Industry Practices	)	WC Docket No. 07-52

FURTHER COMMENTS OF PAETEC HOLDING CORP.

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PAETEC Holding Corp., on behalf of its operating subsidiaries, PAETEC Communications, Inc., US LEC, and McLeodUSA Telecommunications Services, Inc. (jointly referred to as "PAETEC") files these further comments in response to the Commission's notice of further inquiry in *In the Matter of Preserving the Open Internet Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52 (rel. Sept. 1, 2010) ("*NFI*").

I. Treatment of Managed or Specialized Services

The Commission is rightly concerned in the *NFI* that managed or specialized services provided over the same last mile facilities as broadband Internet access service create the potential for large carriers to bypass open Internet protections, supplant the open Internet, and engage in anti-competitive conduct.[1] Any of these forms of conduct may be harmful not just to consumers, but also to content, applications and service providers ("CASPs"), including competitors such as PAETEC. In addition, the *NFI* acknowledges that the potential harm of such conduct may be magnified by the fact that "due to limited choice among broadband Internet access service providers, consumers may not be able to

[1] *NFI* at 2-3.

effectively exercise their preferences for broadband Internet access service (or content, applications, or services available through broadband Internet access service) over specialized services."[2]

It is commendable that the Commission is recognizing that its now nearly decade-long crusade to deregulate at the wholesale level has had the predictable result of limiting both consumer choice and facilities-based broadband competition. PAETEC has long maintained that to encourage facilities-based broadband competition the Commission must ensure that wholesale markets are adequately regulated when there is a market failure in the wholesale market, as regulators in nearly every other OECD country have done.[3] However, such a policy change would require the Commission to act expeditiously in the pending special access and other wholesale-focused proceedings,[4] and is well beyond the scope of this proceeding.

Until such a policy change is implemented, concerns about large carriers' managed or specialized services strangling the open Internet will remain. That said, such concerns are presently only theoretical. Therefore, PAETEC reiterates its view that the Commission should refrain from any regulation of managed services at this time and simply monitor

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[2] *Id. at* 3, *citing* Free Press Comments at 14; Vonage Comments at 7-8; and Open Internet Coalition Comments at 71-73. All references to "Comments" refer to comments filed by the named party in this docket on or about January 14, 2010, and all references to "Reply Comments" refer to reply comments filed by the named party in this docket on or about April 26, 2010,

[3] *See* "Why Broadband Service in the U.S. Is So Awful, And one step that could change it," *Scientific American*, October 2010, available at http://www.scientificamerican.com/article.cfm?id=competition-and-the-internet (last viewed Oct. 4, 2010).

[4] *E.g.*, In the Matter of Special Access Rates for Price Cap Local Exchange Carriers, WC Docket No. 05-25; and AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, RM-10593.

developments in this market sector.[5] Not surprisingly, "wait and see" is also the overwhelming industry consensus view, among incumbents and competitive providers, cable and telco, large and small alike.[6]

a. If Regulations Are Necessary, They Should Be Limited In Scope

If the Commission decides to promulgate regulations addressing managed services nonetheless, its actions should be limited in scope and narrowly targeted. Such regulations would involve using only a subset of the six policy approaches identified in the *NFI*.[7]

i. Definitional Clarity, Disclosure and Truth in Advertising May Suffice If Applied to Protect Both Consumers and Competitors

PAETEC agrees that both consumers and competitors would benefit from having definitional clarity and disclosure and truth in advertising regulations for "broadband Internet access service." However, it is not clear that regulatory intervention is necessary. As PAETEC has already suggested,[8] this area could be a fertile ground for industry self-regulation. Specifically, the Commission (and/or the Federal Trade Commission) should encourage the development of voluntary industry standards for provision of any consumer service advertised as providing "broadband Internet access" and for cross-network peering and transiting of Internet access traffic.[9]

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[5] *See,* PAETEC Comments at 13-15 and 28-31; and PAETEC Reply Comments at 20-22.

[6] *See, e.g.,* ACA Comments at 17-18; Bright House Comments at 11-15; Clearwire Comments at 13-14; Google Comments at 72-74; Sprint/Nextel Comments at 37-39; and XO Comments at 15-18.

[7] *NFI* at 3-4.

[8] *See* PAETEC Reply Comments at 20-22.

[9] See PAETEC Comments at 28; and PAETEC Reply Comments at 22.

Once a definition of "broadband Internet access" is developed, the Commission or the FTC could issue regulations forbidding carriers from using the term "Internet access" in connection with – or to advertise to consumers - any service that is not functionally equivalent to the existing non-discriminatory, so-called "best efforts" Internet[10] or that involves any form of prioritization that is not either (a) subscriber-directed or (b) non-discriminatory within industry-standard categories of traffic. This rule could be supplemented with a substantive, targeted disclosure rule that gives consumers and competing service providers necessary information about each provider's standard Internet access service and the traffic or network management practices used in providing that service.[11] Finally, the truth in advertising aspect of any regulation should require disclosure of sufficient information to allow consumers, third parties (including competitors) and the Commission to understand the scope and ramifications not only of a

[10] The term "best efforts" is misleading since most, if not all, broadband Internet access service providers already perform at least some prioritization – usually of VOIP traffic - across even the public Internet portion of their networks. For example, PAETEC operates the public Internet portion of its network on a "best efforts" basis, with the exception that it generally prioritizes the VoIP and video traffic that it identifies, regardless of origin or destination. *See also* n. 14 *infra*.

[11] Any disclosure rule should be applied to a provider's entire network. If the rule is applied only to physical bottleneck facilities, such as Internet peering points or the last mile, large network owners can create "virtual bottlenecks" through routing algorithms or other traffic management practices. An example would be a network with a strict caching policy that would create an automatic 100 ms delay for all traffic. Combined with regular network latency, this practice could create unacceptable quality on real-time interactive, latency-sensitive applications, such as VoIP. The network owner could exploit this fact either by prioritizing only its own VoIP traffic, by publicizing the "slowness" of the network of its competitors whose traffic is affected by the caching, or by offering for a fee a prioritized VoIP service. The effect would be the same no matter where or how in the network this bottleneck was created.

provider's broadband Internet access service, but also of each of its specialized or managed service offerings that may have a permanent or transient impact on the Internet service.[12]

Competitors such as PAETEC have every incentive to ensure quality Internet access service for their customers by seeking fair and non-discriminatory treatment of their traffic across all networks with which they exchange Internet access traffic. A clear and detailed disclosure rule will empower these competitors to monitor large carriers' traffic management activities, and then to publicize (and if necessary, challenge) any practices whose results are anti-competitive or anti-consumer. Of course, any disclosure requirement must be made non-waivable; that is, large carriers should be precluded from using their leverage to effectively force competitors to waive any right to disclosure via tariff or contract.

ii. Non-Exclusivity in Specialized Services is Necessary

If the Commission decides to regulate specialized services, it should require that a carrier's commercial arrangements with a vertically-integrated affiliate or a third party for the offering of specialized services be offered to other, non-affiliated third parties on the same terms (including an IP interconnection duty). If the Commission does not do so, it risks creating unintended anti-competitive consequences by strengthening the position of the largest broadband Internet access providers. *See* pages 8-9 *infra*.

iii. Imposing Service Limitations or Capacity Requirements Would be Anti-Competitive and Would Hamper Innovation and Competition

[12] A transient impact, for example, would include temporarily throttling down subscribers' Internet access bandwidth in order to use more of the available bandwidth to provide specialized services, such as video on demand, to other subscribers.

If some regulation of managed services is deemed necessary, the Commission should avoid applying the policy responses identified in Parts I(E) and (F) of the *NFI*. Specifically, in no event should the Commission attempt to identify, much less limit, the types of managed or specialized services that can be provided by an entity that is also providing broadband Internet access service. The Commission has been moving away from this type of siloed, command-and-control approach for the better part of three decades, starting in the wireline world and later moving into the wireless sphere. Now is no time to backtrack, particularly since there is no evidence that such a retreat to discredited past policies is either necessary or likely to be effective.

There is also no reason why the Commission should require providers either to offer broadband Internet access service as a separate service or to guarantee or expand the network capacity allocated to their broadband Internet access service. Provided the Commission expeditiously implements regulatory measures that remedy the wholesale market failings, particularly for last mile facilities, even large network owners (i.e., the BOCs and cable MSOs) should be free to allocate their network capacity as they wish. If any provider decides to forego or exit the consumer market entirely by not offering a retail broadband Internet access service, it should be free to do so. If it wants to provide a limited or suboptimal experience to consumers buying their Internet access, it should be free to do so, *as long as the limitations are identified to consumers and competitors, as discussed in subsection (i).*

In short, rather then reverting to antiquated regulatory approaches, the Commission should rely on competition as the driver in forcing providers to upgrade their network capacity. Even the limited broadband competition of the past decade has resulted in such

network and capacity upgrades as DOCSIS 3.0, FiOS and 4G wireless. Greater competition will no doubt lead to more new and as yet unimagined specialized services. Therefore, rather than trying to freeze service offerings like insects in amber, the Commission should focus its efforts on creating more competition at both the wholesale and retail levels.

b. The Relationship Between Specialized Services and Prioritization

There is a difference between specialized services and prioritization (whether paid or offered for free), although the two are related.[13] In fact, managed or specialized services are simply one end of a spectrum of prioritized services that can be offered over a converged IP network.

PAETEC agrees with the large majority of commentors in this proceeding that prioritization defined or chosen by a retail subscriber/customer for its own traffic, whether paid for or provided at no additional charge by the network provider, should always be permissible. PAETEC also takes the position that service providers should be free to agree to network-to-network interconnection ("NNI") agreements with other providers whereby each commits to honor *without any additional charge* the other's MPLS quality of service ("QOS") labels and provide equivalent QOS to its public Internet traffic, so long as the QOS-honoring capability is made available on a nondiscriminatory basis.[14] Such non-

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[13] The discussion of managed or specialized services has been muddied of late by a collateral debate over paid prioritization and DiffServ. *See* Letter from Robert W. Quinn, Jr., T&T Services Inc., GN Docket No. 09-191 (filed Aug. 30, 2010); Letter on behalf of New America Foundation, GN Docket No. 09-191 (filed Sept. 1, 2010); and Letter from Robert W. Quinn, Jr., AT&T Services Inc., GN Docket No. 09-191 (filed Sept. 15, 2010). Whether or not the developers of DiffServ envisioned paid prioritization or what forms of prioritization they had in mind in the 1990s is simply irrelevant to the question of how or whether the Commission should regulate managed Internet services a dozen years later.

[14] *See* PAETEC Comments at 29 and n. 32 and PAETEC Reply Comments at 11 . PAETEC's position on this issue is simple: all Internet traffic destined to or originating from endpoints outside the network of a broadband Internet

discriminatory NNI agreements can only have beneficial effects. At the same time, there is a practical and qualitative difference between permitting operators to manage traffic on their networks to assure quality of service to particular types of traffic —e.g., all VoIP traffic— and the offering of such management to CASPs for a fee or other consideration. The difference is not dispositive of whether or how the practices should be regulated, however, precisely because of the potential for either pro- or anti-competitive outcomes and the lack of evidence based on real world experience.

In fact, any prioritization that is not defined or controlled by the broadband Internet access subscriber has the potential for both pro-consumer and anti-competitive outcomes, whether or not the prioritization also constitutes a specialized or managed service and regardless of whether it is paid for separately or instituted by the provider without a separate charge. For example, some forms of paid prioritization – such as a telemedicine application selected by a doctor or a patient - can also constitute specialized or managed services, and uniformly provide beneficial, pro-consumer outcomes. Similarly, there is at least a theoretical possibility that allowing network operators to charge CASPs for prioritizing content will result in lower prices to consumers for broadband Internet access.[15] On the other hand, any action by the Commission to prohibit payments by service providers for traffic

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access provider should be treated fairly and with equivalence, using normal practices that the provider maintains for or applies to the Internet access traffic of its own customers. Another carrier's traffic should not be discriminated against based on hop counts, available bandwidth or other factors that might make a route across a carrier's network less desirable than that of the provider's own traffic to the same or similar destinations. PAETEC adheres to these principles in its network management. Except as discussed in note 10, *supra*, PAETEC generally provides no other traffic shaping or discrimination for itself or its customers on the public Internet portion of its network. PAETEC does not charge content, application, and service providers for prioritization of traffic today, and currently has no plans to begin imposing any such charges.

[15] *See, e.g.,* Alliance for Digital Equality Comments at 2.

prioritization – unless accompanied by a strictly enforced, non-discriminatory IP interconnection requirement - could have unintended anti-competitive consequences by strengthening the position of the largest providers, such as AT&T, Verizon and Comcast.[16]

It is simply too early to tell whether a problem exists with current practices or will develop in the future, or whether a ban on paid prioritization would have beneficial effects on innovation that outweighed its potential anti-competitive effects. Therefore, all broadband network operators should remain free to explore two-sided business models and develop alternatives to subscriber-based revenue streams, including paid prioritization. To that end, the Commission should refrain at this time from regulating the ability of network owners to charge CASPs for prioritized services. Instead, it should continue to monitor the situation, and address anti-competitive activities through expedited complaint proceedings if such activities are identified.

II. Any Open Internet Principles Should Apply to Mobile Wireless Platforms

PAETEC has made clear in previous submissions in this and the *Broadband Reclassification* proceeding the reasons why it supports the application of Open Internet

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[16] For example, if facilities-based ISPs can offer separate managed services and at the same time there is a prohibition on service providers paying for traffic prioritization, the largest facilities-based ISPs (e.g., AT&T, Verizon, Comcast, etc.) would have a significant (and unfair) regulatorily-conferred advantage in providing both (i) managed services and (ii) QOS or prioritized services over the public Internet. They would be the only providers who could offer high-capacity, high QOS applications, either entirely on-net or through QOS peering agreements with each other. Because agreements among Tier 1 peers would not involve payment, they would not run afoul of a prohibition on payments. Moreover, the large ISPs would have no incentive to enter into similar agreements with smaller ISPs. If those smaller ISPs were not allowed to buy the prioritization necessary to support their competing applications, the market position of the big facilities-based operators would be cemented. The large ISPs would be the only providers able to offer such services as "managed services" or as "peered" (but discriminatory) public Internet access services. Similar concerns about the possibility of anticompetitive activity and "tipping" on the public Internet backbone have led the Commission to seek to maintain a minimum number of Tier 1 peers by requiring divestiture of MCI's Internet backbone as a condition of the *WorldCom/MCI Merger Order* and imposing public Internet peering conditions in the *SBC/AT&T, Verizon/MCI* and *AT&T/BellSouth Merger Orders*. *See* PAETEC Comments at 15-16.

principles to all broadband platforms, specifically including both fixed and mobile wireless networks.[17] That said, there are differences between platforms. In recognizing those differences, PAETEC is part of the widespread industry consensus that the application of Open Internet rules to mobile wireless networks should (i) be tempered initially in light of the capacity constraints inherent in the RAN or last mile portion of such networks, and (ii) be modified over time based on experience and developments in wireless technology.[18] This eminently reasonable position should be the basis for the Commission's application of Open Internet rules to mobile wireless networks.

Neither of the developments cited in the *NFI* – the introduction of tiered data pricing plans by a few mobile carriers or the watered down Verizon/Google net neutrality proposal – provides any reason for PAETEC to change its position or for the Commission to hesitate in applying any future Open Internet rules to mobile wireless networks. The introduction of tiered end user pricing is no more relevant to the wireless Open Internet debate than the earlier introduction of wireline tiered pricing plans was to the wireline Open Internet debate. Tiered pricing only addresses the "bandwidth hog customer" problem; it is irrelevant to the other, more important aspects of Open Internet rules, such as non-discrimination among applications and devices, charging CASPs for content prioritization and the ability of carriers to block customers' communications. Similarly, the

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[17] *See* PAETEC Comments at 31-33 and PAETEC Reply Comments at 22-23; *see also* Comments of PAETEC Holding Corp., *In the Matter of Framework for Broadband Internet Service*, GN Docket No. 10-127 (filed July 15, 2010) at 17-19 (arguing that mobile wireless broadband services should be classified under Title II of the Communications Act).

[18] *See, e.g.*, Letter from Prof. Scott Jordan, GN Docket No. 09-191 (filed April 9, 2010) at 1-21; CDT Comments at 51-52; Clearwire Comments at 9-11; Leap Wireless Comments at 9-12; Rural Cellular Ass'n Comments at 16-20; Sprint/Nextel Comments at 26-37; and Comments of Cincinnati Bell Wireless LLC, GN Docket No. 09-191 (filed January 14, 2010) at 6-7;.

proposal from the business partners Verizon and Google represents no more than a clearly self-serving attempt to exempt the fastest growing segment of their businesses from any substantive Open Internet regulation.

It is worth noting that in the three years since the eruption of the Comcast-BitTorrent dispute, most of the violations of the Commission's 2005 Open Internet principles that have become public occurred in the wireless space, not on wireline platforms. If the Commission wishes to consider developments in the wireless space that should be taken into account, it need look to further than T-Mobile's recent blocking of SMS messages by its indirect customer, EZ Texting.[19] If mobile wireless platforms are exempted from Open Internet rules, such conduct could well become more common.

PAETEC also wishes to comment on one additional topic raised in the wireless portion of the *NFI:* transparency. The *NFI* (at 5) seems to suggest that the Commission will consider imposing a transparency requirement only in relation to a provider's device, application and certification policies. As T-Mobile's action shows, this focus is too narrow. It is at least as important for customers and interconnecting service providers to know if wireless carriers are blocking or slowing their traffic based on factors other than the device or application, such as the origin or content of the transmission. As the *NFI* noted, the purpose of a transparency requirement is broadly "to ensure that consumers and content, application, *service,* and device *providers* can make informed choices regarding use of

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[19] In its court documents, T-Mobile had claimed the right to block EZTexting's messages (see http://www.wired.com/images_blogs/threatlevel/2010/09/tmobilebrief.pdf), but it apparently has retreated from that position in settling the case filed against it by EZTexting. *See* "Texting Censorship Flap Settled Out of Court," available at http://arstechnica.com/tech-policy/news/2010/10/texting-censorship-flap-settled-out-of-court.ars.

mobile broadband networks."[20] There is no reason why any transparency or disclosure obligations imposed on wireline networks should not be imposed equally on mobile wireless networks.[21]

Conclusion

The Commission has sufficient information and evidence to reclassify the various forms of broadband Internet access under Title II and to impose limited Open Internet rules that will ensure the continued growth of the Internet ecosystem is maximized and at the same time beneficial for all stakeholders, not just the large telcos and cable MSOs. The Commission should bring this and the *Broadband Reclassification* proceeding to conclusion before the end of the year.

Respectfully submitted,

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[20] *NFI* at 5 (emphasis added).

[21] *See* PAETEC Comments at 25-28; and PAETEC Reply Comments at 17-20.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 12th day of October, 2010, a true and correct copy of the foregoing comments of PAETEC Holding Corp. was served electronically on the following:

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